



Operating Manual

For



MigWeld 200S

200 AMP Inverter MIG/STICK Welder 220v

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THANK YOU!

We, at LONGEVITY, want to thank you for purchasing our product. You are almost ready to experience Longevity Welding first hand. Longevity definitely appreciates your business and understand that this equipment may be overwhelming to setup and operate so we have prepared a manual that will assist you in understand your new plasma cutter/welder. If you have any questions during or after reading this manual, please feel to contact us! Please take a moment to register your product on our website at www.longevity-inc.com or www.lweld.com

Once again, thank you for choosing Longevity as your main welding supplier!

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Please join our welding forums to share welding tips and tricks, to receive useful information from customers who also use our products, and to be a part of the Longevity™ welding community at www.freeweldingforum.com



Check out LONGEVITY Racing at www.longevity-racing.com

LONGEVITY Global, Inc. will cover the return and replacement shipping charges (both ways) for units in need of warranty within and only for the first 30 days from the purchase date. After the 30 days from the purchase date, the purchaser shall be responsible for all shipping and handling costs of returning (both ways) the defective/faulty products for repair or replacement. We are not responsible for lost returns. The labor coverage only applies if the unit is serviced at our facility or one of our authorized dealers. We will

not reimburse the labor if you wish to have a third-party or unauthorized repair technicians work on the product.

Shipping Damage

Your machine is insured against damage during shipping. Keep all packing materials and containers in case machine must be returned. We will initiate a claim with the shipping company to cover damage or loss. If there is shipping damage upon opening your package, our customer service team will work with you to get the matter resolved.

In Warranty Service

Customers, who own machines that are in warranty and require service, should contact our Warranty Department by email at help@longevity-inc.com to obtain a return authorization code. In addition to the warranty we offer, we would like for you to register your product on our website at www.longevity-inc.com/resources. Remember, warranty starts from the date of purchase. For your convenience, write your order information below so you can track your order in case you need warranty work.

Order No.: _____

Date of Purchase: _____




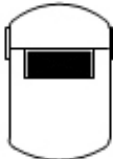
Warranty Period: _____

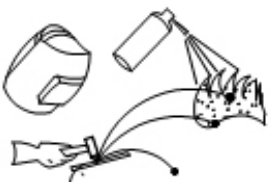

Out-of-Warranty Service

Customers, who own machines that are out of warranty and require service, should contact us for an estimate. Longevity offers an exchange program on out of warranty units. We also help non LONGEVITY customers with repairs, replacement, and service.

If your unit is not manufactured by Longevity and you cannot receive service from your manufacturer or seller, Longevity will lend out hand. Our warranty policy is also available for all plasma cutters and welders. For more information, please email us at help@longevity-inc.com

Warnings and Safety

<p>Welding and plasma cutting may be dangerous to the operator and to bystanders, if the equipment is not operated properly. Welding or cutting must be performed in accordance with all relevant safety regulations. Carefully read and understand this instruction manual before installing and operating this equipment.</p>	
<p>Changing function modes during welding may damage equipment.</p> <p>Before welding, disconnect the electrode-holder cable from the equipment.</p> <p>A circuit breaker is required to prevent electrical overload of the equipment.</p> <p>Only high quality welding tools should be used.</p>	
<p>Electric Shock can be fatal.</p> <p>Ensure that ground cable is connected in accordance with applicable safety codes.</p> <p>Never touch electrodes, wires, or circuit components with bare hands. Wear dry welding gloves when welding.</p> <p>The operator must be insulated from the work piece.</p>	
<p>Smoke and gas can be harmful to health.</p> <p>Ensure that the working area is well ventilated.</p> <p>Avoid breathing smoke and gas generated during the welding process. Cutting and welding can cause cancer because of the smoke that comes from the welds and cuts.</p>	
<p>Arc-light emission can be harmful to eyes and skin.</p> <p>Always wear a welding helmet, anti-radiation glass, and work clothes while welding.</p> <p>Ensure that people in or near the working area are protected.</p>	

<p>Welding splash is a fire hazard.</p> <p>Keep flammable material away from the work place.</p> <p>Keep a fire extinguisher nearby, and have all personnel trained in its use.</p> <p>Surface noise generated while welding or cutting can be harmful to hearing.</p>	
<p>In the event of a machine fault.</p> <p>Refer to this instruction manual.</p> <p>If the fault cannot be determined, contact your local dealer or supplier for assistance.</p>	

Safety Tips

Consider the following tips to ensure safe operation of your welding/cutting equipment:

- Ensure that this welding equipment is installed in an area free of corrosive chemical gases, flammable gases or materials, and explosive chemicals.
- The area should contain little dust, and have a humidity of no more than 80%.
- Operate the welding equipment in an area sheltered from direct sunlight and precipitation. Work area temperature should be maintained at -10 °F to 40 °C;
- If, because of an overload, the machine suddenly stops, and it is necessary to restart it, leave the internal fan operating to lower the inside temperature.
- Always wear protective clothing and a welding mask to protect your skin.
- Wear safety goggles designed to darken the arc generated by your machine.
- Wear suitable noise protection to protect your hearing.
- Ensure that machine is grounded through the power cord or on the machine case.
- Never operate the machine in bare feet or on a wet floor.
- Never switch the machine off while it's in use. Doing so will damage the internal circuitry.
- Ensure that your circuit breaker is rated to handle the current requirements of your machine.
- Use a UL approved receptacles and plugs with your machine. Never hard wire the machine to main power.
- Work in a well-ventilated area to avoid smoke. Keep your head out of the smoke. Ensure that air is flowing away from you to avoid inhaling smoke.
- Ensure proper ventilation through the machine's louvers. Maintain a distance of at least 12 inches between this cutting equipment and any other objects in the work area.
- Use a screen or curtain designed to keep passer byes from viewing the arc.
- The arc spray and metal spray from machine use may cause nearby fires. Use caution.
- If, after reviewing this manual, you have any problems in setting up or operating your machine, contact us at help@longevity-inc.com.

WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood, by the operator, that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

ARC WELDER SAFETY WARNINGS AND PERCAUTIONS

Warning: This product, when used for welding and similar applications, produces chemicals to cause cancer and birth defects (or other reproductive harm).

Avoid electrical shock. Do not permit electrically live parts, cables, or electrodes to contact skin, clothing or gloves. Protective clothing should be hole free, dry and ANSI approved. This unit draws enough current to cause serious injury or death. Before turning the welder on, check the welder gun to be sure that there are no protruding screw heads and that all insulation is secure. Do not weld unless you are insulated from the ground and the work piece.

Avoid breathing fumes or gases. These gases can cause serious health problems. Use an active ventilation system directly above the welding area. Keep your head out of the fumes.

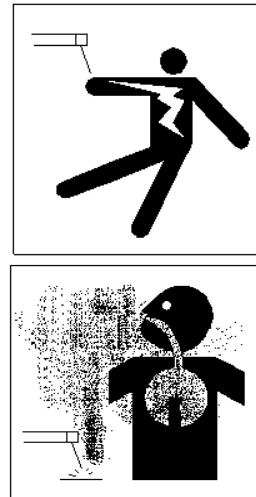
Avoid eye and body damage. Arc rays and infrared radiation can cause injury to the eyes and burn the skin. Wear ANSI approved eye and body protection. Do not allow viewing by visitors without proper eye and body protection.

Know proper arc welding practices. Read and understand the manufacture's instructions, as well as your employer's safety practices for arc welding.

Connect only to a code approved power source. Connect only to a grounding power source conforming to the National Electrical Code and Local Codes.

Avoid fire and explosion. Remove flammable and explosive material to a minimum of 35 feet from the welding arc to prevent welding sparks or molten metal from starting a fire. Keep a type ABC fire extinguisher within easy reach. Thoroughly clean the object being welded of any paint, grease or other foreign material.

Avoid being burned. Always wear ANSI approved welding gear: eye wear, leather gloves, leather apron and shoes.



WARNING ARC WELDING CAN BE HAZARDOUS

WARNING: THIS WELDING MACHINE MUST BE CONNECTED TO POWER SOURCE IN ACCORDANCE WITH LOCAL ELECTRICAL CODES

WARNING: DISCONNECT POWER SOURCE BEFORE DISASSEMBLY OF THE TORCH

WARNING: THE SHIELD NOZZLE MUST BE INSTALLED PRIOR TO OPERATION OF THE TORCH

WARNING: ALL INSTALLATION, MAINTENANCE, REPAIR OPERATION OF THIS EQUIPMENT SHOULD BE PREFORMED BY QUALIFIED PERSONS ONLY IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL CODES
ELECTRIC SHOCK CAN KILL.

Improper use of electric arc welders can cause electric shock, injury and death! Take all precautions described in this manual to

reduce the possibility of electric shock.

The MigWeld140 power switch is to be in the OFF (“O”) position when installing work cable and gun and when connecting power cord to input power.

Always wear dry, protective clothing and welding gloves and insulated footwear.

Always operate the welder in a clean, dry, well-ventilated area. Do not operate the welder in humid, wet, rainy or poorly ventilated areas.

Be sure that the work piece is properly supported and grounded prior to beginning the electric arc welding operation.

The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not touch these “hot” parts with your bare skin or wet clothing.

Ground the work or metal to be welded to a good electrical (earth) ground.

FUMES AND GASES can be dangerous.

Do not breathe fumes that are produced by the arc welding operation. These fumes are dangerous.

Keep the head and face out of the welding fumes.

Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation.

WELDING SPARKS can cause fire or explosion.

Do not operate electric arc welder in areas where flammable or explosive vapors.

Always keep a fire extinguisher accessible while performing arc-welding operations.

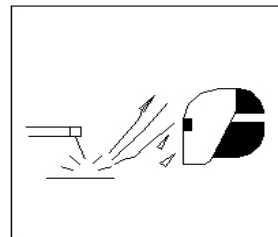


ARC RAYS can burn.

Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding.

Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the rays.

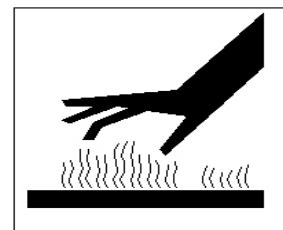
Protect other nearby personnel with suitable non-flammable screening or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.



HOT METAL can burn

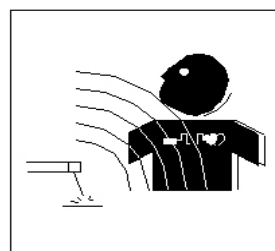
Electric arc welding operations cause sparks and hot metal to temperatures that can cause severe burns! Use protective gloves and clothing when performing any metal working operations. Make sure that all persons in the welding area are protected from heat, sparks and ultraviolet rays. Use additional face shields and flame resistant barriers as needed.

Never touch work piece until completely cooled.



ELECTRIC AND MANGETIC FIELDS may be dangerous

The electric magnetic field that is generated during arc welding may interfere with the operation of various electrical and electronic devices such as cardiac pacemakers. Persons using such devices should consult with their physician prior to performing any electric welding operations .Exposure to electromagnetic fields during



welding may have other health effects, which are not known.

Model		MIGWELD200S
Rated Input Voltage		220V/1Phase
Frequency (Hz)		50/60
No-Load Loss		50W
Efficiency		0.80
Power Factor		0.73
No-load output voltage		50-80V
MIG	Rated Input Current	37.4A
	Output Voltage adjustment Range	15.5-24V
	Output Current Range	30-200A
	Load Duty Cycle	60% @200A/24V
STICK	Rated Input Current	38.1A
	Output Voltage	21.2-27.2V
	Output Current Range	30-180A
	Load Duty Cycle	60% @180A/27.2V
	Anti-sticking Function	YES
Protection Class		IP21
Cooling method		Fan-cooled
Standard		GB15799.1-2004
Size		
Weight		

OPERATION AND CONTROLS

Diagram of panel



1. QC/STICK/MIG Indicator

Light indicators which demonstrate which welding process is selected and if the duty cycle has been reached.

2. MIG/ STICK Selection Knob

Allows easy selection of the welding process desired.

3. Wire Feed/ Spool Gun Knob

Easily switches between the wire feed and spool gun functions of the MigWeld 200S

4. Voltage/ Arc Force Knob

When the unit is in MIG mode, this knob adjusts the welding voltage. If the unit is in STICK mode, the knob adjusts the amount of arc force.

5. Wire Speed / Stick Amps

Allows the user to control the wire speed function when in MIG mode or to adjust the amperage when in STICK mode

6. Wave Form

Controls arc characteristics while in MIG mode only. Lower wave form settings make the arc softer with less weld spatter. Higher wave form settings give a stronger driving arc which can increase weld penetration.

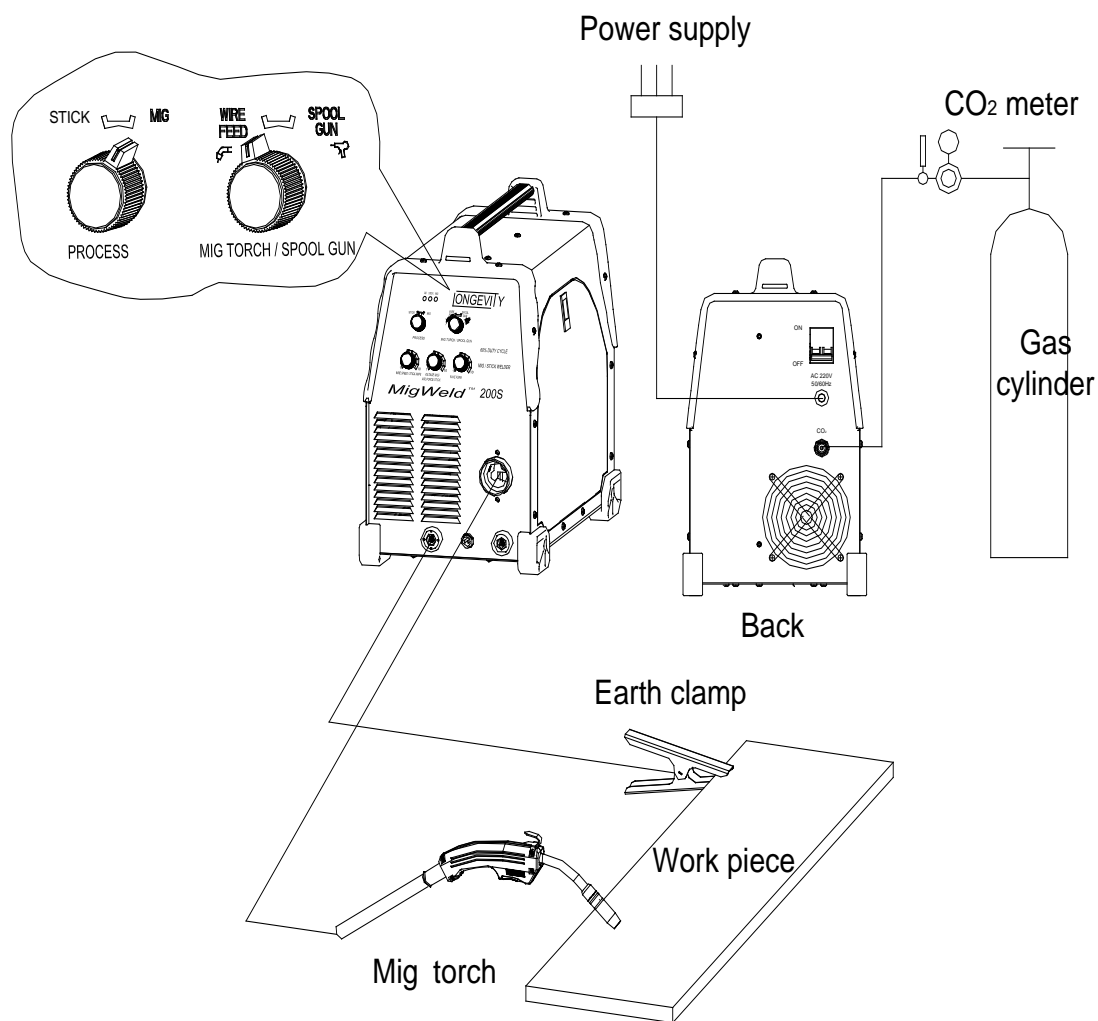
OPERATION AND CONTROLS

Operation and controls

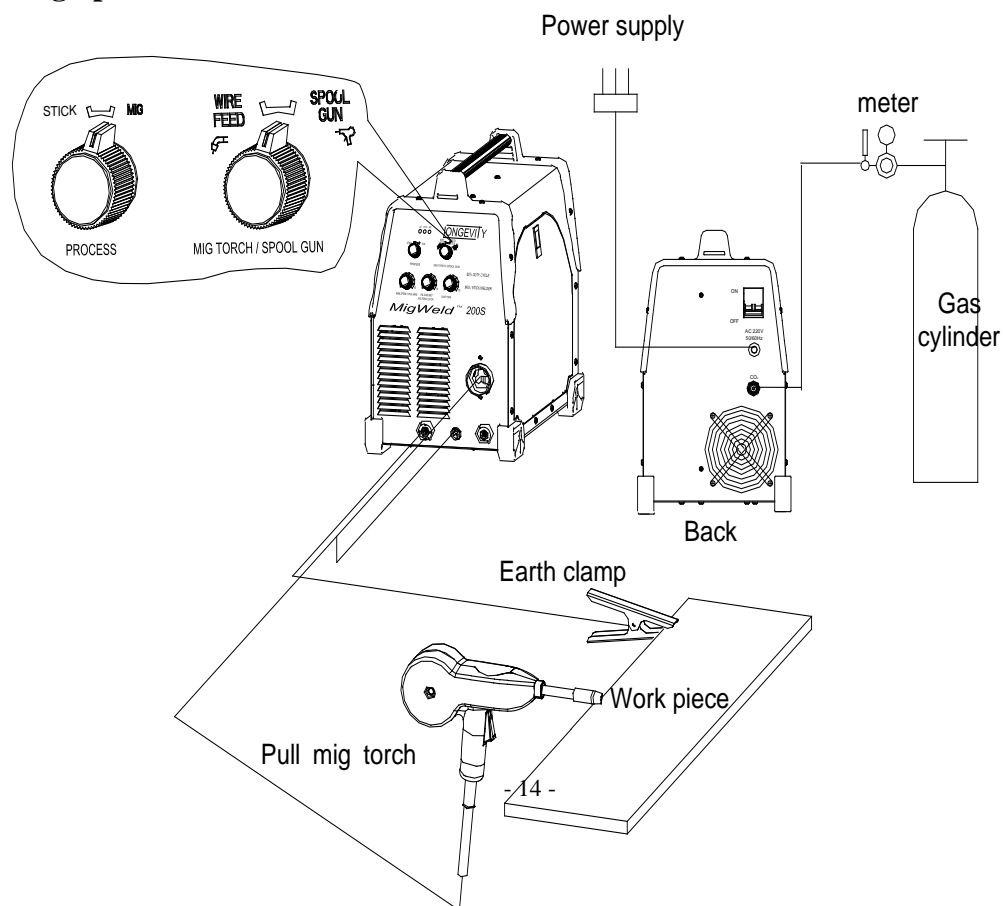
1. Set the power switch of the welding machine at "ON" position, open the valve of gas cylinder and adjust the flow meter to required setting.
2. Select the diameter of welding wire on welding feeding machine according to specified value.
3. Select bore diameter of welding torch contact tube according to diameter of wire.
4. According to the thickness, adjust VOLTAGE knob and SPEED knob to required position.
5. Press the switch on welding torch to make the welding wire extend out of gun head, and then the machine is ready to work.
6. Reference table for welding conditions

Parent metal	Thickn ess (mm)	Welding method	Diameter of wire (Φ)	Welding current range (A)	Applicable to OUR welding machine's model
Carbon steel, common low alloy steel	0.8-8.0	CO2/MAG	0.8/1.0/1.0	60--230	MigWeld 200S

Set-up for using MIG function:



Set-up for using Spool Gun Function:



The diagram illustrates the MigWeld 200S welding power source. The front view shows the control panel with the following labels and components:

- STICK / MIG**: A selector switch at the top left.
- PROCESS**: A large rotary knob below the selector switch.
- WIRE SPEED / STICK AMPS**: A large rotary knob at the bottom left.
- ON/GEVITY**: A brand logo at the top center.
- MigWeld™ 200S**: The model name in the center.
- Controls**: Several smaller knobs and switches labeled "PRESSURE", "AIR TIGHT SHUT OFF", "WELD DUTY CYCLE", "MIG STICK WELDER", "WELDING SPEED", "WELDING AMPS", and "WELDING VOLTAGE".
- Output Terminals**: Two large terminals at the bottom for electrode holder and earth clamp connections.

The back view shows the following components:

- Power Input**: A three-prong electrical plug at the top.
- ON/OFF Switch**: A toggle switch on the right side.
- AC 220V 50/60Hz**: The input voltage and frequency specification.
- CO₂**: A gas inlet port.
- Fan**: A large cooling fan at the bottom.

Labels for the connections in the bottom view include:

- Earth clamp**: Points to the terminal where the ground cable is connected.
- Work piece**: Points to the metal plate being welded.
- Electrode holder**: Points to the terminal where the welding torch is connected.

Operation

1. Turn the power switch to the “ON” setting, the LCD display will show set current volume and the cooling fan will beginning to revolve.
2. Adjust the Voltage/ Arc Force Knob and the Wire Speed / Stick Amps according to your needs.
3. Generally, welding current is adequate to welding electrode according with as following:

Specification	Φ 2.5	Φ 3.2	Φ 4.0	Φ 5.0
Current	70-100A	110-140A	170-220A	230-280A

4. The Arc Force knob is used to adjust welding function, specially in low current arrange, that is cooperated with knob of welding current adjustment, they may adjust current of arc striking and be out of control of knob of welding current adjustment .So machine can grain powerful energy and push current can achieve effect that may.
5. VRD equipment is installed in the machine. When the switch of back panel is put "ON" position, the VRD indictor is lit and the no-load voltage changes to be less than 15V, which is safe for people; and when the switch is put "OFF" position, the VRD indicator is off.

LONGEVITY® Global, Inc. thanks you for your purchase and the opportunity to be able to serve you. If, after reviewing this manual, you have any problems in setting up or operating your machine, contact us at help@longevity-inc.com.

LONGEVITY® Global, Inc.

Toll-Free 1-877-LONG-INC / 1-877-566-4462

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Sales: sales@longevity-inc.com

Customer Service: help@longevity-inc.com

Dealers: dealers@longevity-inc.com

Please join our welding forums to share welding tips and tricks, to receive useful information from customers who also use our products, and to be a part of the LONGEVITY® welding community at www.freeweldingforum.com

For the coolest LONGEVITY sponsored race teams plus a complete racing forum that covers everything from Drag Racing to RC Car Racing, please check out www.longevity-racing.com!

Enjoy your new welding machine from LONGEVITY! Thanks again!